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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,763	09/23/2003	Xin Jin	555255012578	2548

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EXAMINER	
LAU, TUNG S	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/668,763	JIN ET AL.	
	Examiner	Art Unit	
	Tung S Lau	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *See Office Action*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on 1-26-2004 has been accepted and signed by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15, 17-18, and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji et al. (U.S. Patent 6,160,380).

Regarding claim 1:

Tsuji discloses in a mobile device having a profile table that relates a plurality of battery profile values with a plurality of operating parameter values, a method of determining a capacity of a battery using the profile table, comprising: measuring an operating parameter of the battery (Col. 1-2, Lines 61-36); accessing the profile table to translate the measured operating parameter into a battery profile value (Col. 3-4, Lines 35-50); adjusting the battery profile value by a correction factor to generate a corrected battery profile value (Col. 1-2, Lines 61-36); calculating the capacity of the battery using the corrected battery profile value (fig. 11); using the measured operating parameter to estimate an actual battery profile value (fig. 13a, b); and automatically calibrating the correction factor using the estimated actual battery profile value (Col. 1-2, Lines 61-36, fig. 12).

Regarding claim 12:

Tsuji discloses a method of estimating an operating time for a predetermined function of a device having a battery, the predetermined function relying on the battery to operate for the duration of the operating time, comprising: determining an accessible capacity value for the battery (Col. 1-2, Lines 61-36, fig. 11); determining a load value for the predetermined function (Col. 1-2, Lines 61-36); and determining the operating time value as a function of the load value and the accessible capacity value (Col. 1-2, Lines 61-36).

Regarding claim 22:

Tsuji discloses a mobile device, comprising: a memory device (Col. 4, Lines 31-50), a battery (Col. 1-2, Lines 61-36); a profile table stored in the memory device that relates a plurality of battery profile values with a plurality of operating parameter values (Col. 1-2, Lines 61-36); means for measuring an operating parameter of the battery (Col. 1-2, Lines 61-36); means for accessing the profile table to translate the measured operating parameter into a battery profile value (Col. 1-2, Lines 61-36); means for adjusting the battery profile value by a correction corrected battery profile value (Col. 1-2, Lines 61-36); factor to generate a means for calculating the capacity of the battery using the corrected battery profile value (Col. 1-2, Lines 61-36); means for using the measured operating parameter to estimate an actual battery profile value (fig. 14a, b, Col. 1-2, Lines 61-36); and means for automatically calibrating the correction factor using the estimated actual battery profile value (fig. 12).

Regarding claim 2, Tsuji further discloses parameter is a temperature (abstract); Regarding claim 3, 7, Tsuji further discloses parameter is current (abstract, fig. 9b); Regarding claims 4, 15, Tsuji further discloses is a transmit power of a mobile communication device that is powered by the battery (Col. 1-2, Lines 61-35, Col. 4, Lines 4-50); Regarding claim 5, Tsuji further discloses resistance of the battery (Col. 6-7, Lines 40-16); Regarding claim 6, Tsuji further discloses the profile is capacity value (fig. 9a, b); Regarding claim 8, Tsuji further discloses accessing table parameter into correction factor (Col. 3-4, Lines 50-30); Regarding claim 9, Tsuji further discloses calculating a voltage value as a function of the corrected battery profile value (fig. 17); accessing the capacity value (fig. 11), and profile table to translate the calculated voltage value into a battery calculating the available capacity of the battery as a function of the battery capacity value (fig. 13a, b); Regarding claim 10, Tsuji further discloses adjusting the battery capacity value by a capacity correction factor to generate a corrected capacity value, wherein the capacity of the battery is calculated as a function of the corrected capacity value (fig. 14b); Regarding claim 11, Tsuji further discloses using the measured operating parameter to calculate a battery capacity change; determining a change in the battery capacity value; and automatically calibrating the capacity correction factor using the calculated battery capacity change and the determined change in the battery capacity value (fig. 13-17); Regarding claim 13, Tsuji further discloses unload voltage value (fig. 15-17); Regarding claim 14, Tsuji further discloses determining an equivalent

series resistance value for the battery (fig. 15-17); determining a load voltage value for the battery (fig. 15-17); determining a load current value for the battery (fig. 15-17); determining the unloaded voltage value as a function of the equivalent series resistance value, and the load voltage value, and the load current value (fig. 15-17); Regarding claim 17, Tsuji further discloses charging the battery (Col. 4, Lines 31-50); Regarding claim 18, Tsuji further discloses detecting that the operating time value has reached a predetermined threshold value; and triggering a predetermined action in response to detecting that the operating time value has reached the predetermined threshold value (Col. 1-2, Lines 40-35, fig. 14a, b); Regarding claim 20, Tsuji further discloses displaying the capacity (Col. 2, Lines 1-36);); Regarding claim 21, Tsuji further discloses displaying the time (Col. 2, Lines 1-36, fig. 10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

a. Claims 19 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (U.S. Patent 6,160,380).

Tsuji discloses a method including the subject matter discussed above except warning messages to a user and use on wireless communication. It would have

been obvious to one of ordinary skill in the art at the time the invention was made to use wireless communication in vehicle in order to able to keep in touch with anyone at anytime when in vehicle, and warn a user when power is low in order to avoid the device fail from operating. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tsuji to use wireless communication in order to able to keep in touch with anyone at anytime and warn a user when power is low in order to avoid the vehicle or device not able to operate with the proper power (Col. 1, Lines 41-60, Col. 2, Lines 24-36).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL

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